

ABSTRACT

A method of creating virtual private networks within a packet network having a mesh topology. A flexible virtual private network is established based upon a topology
5 calculated at each member node. The network is set up using label switched paths between adjacent member nodes according to the topology. The topology may be a ring or a tree. A virtual ring is created as a closed-loop sequence of label switched paths established between a set of member nodes.
10 The closed-loop sequence of label switched paths is established by the member nodes as each member node connects to its neighbours on the virtual ring. The virtual ring may expand by adding member nodes and may contract by removing member nodes. A member node's position on the virtual ring
15 may be established using a sortable value.